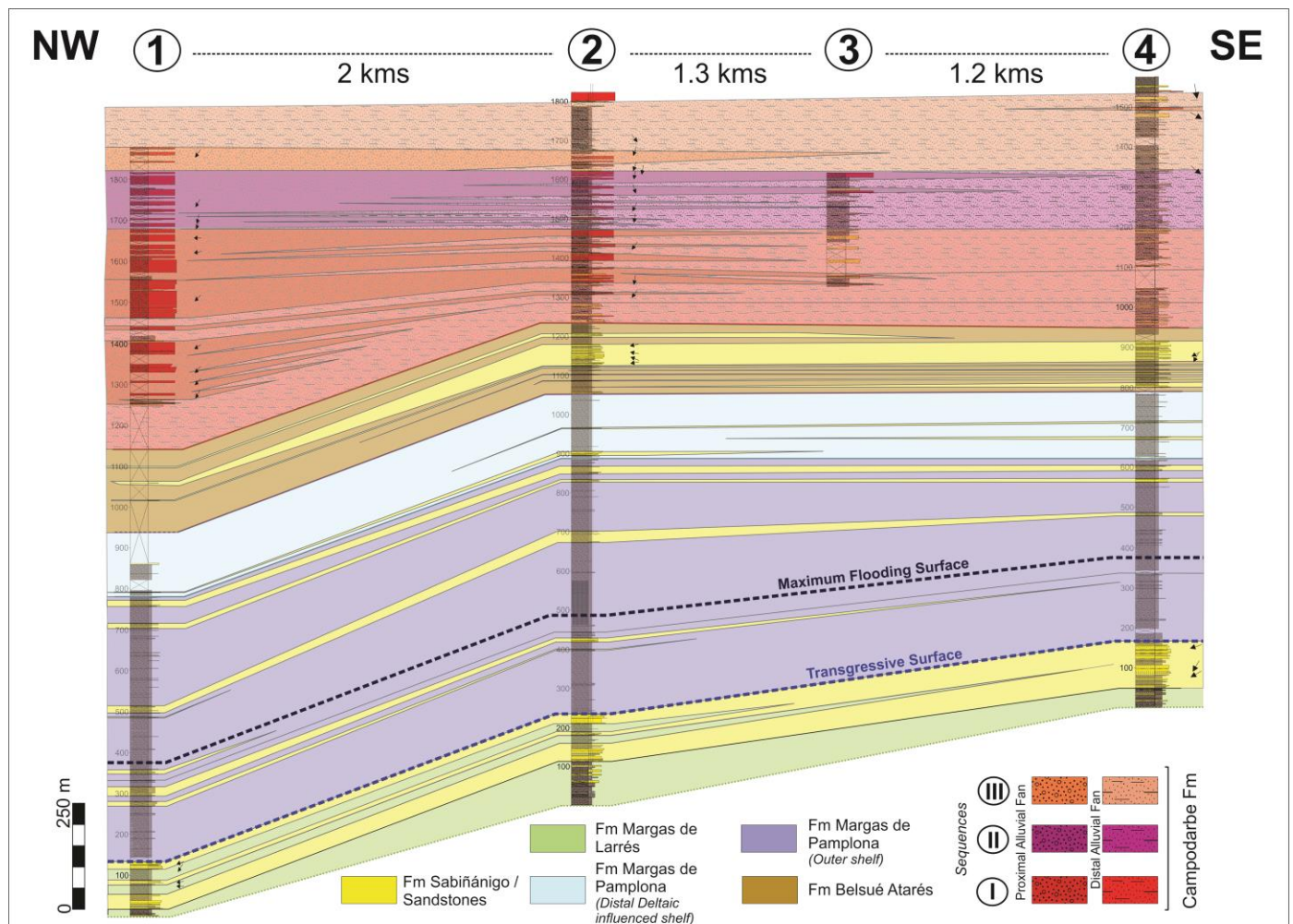


# Stratigraphic Analysis of the Santa Orosia regressive sequence, Middle to Late Eocene of the Jaca Basin

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## ABSTRACT

Jaca synorogenic Tertiary basin constitutes a deformed proximal foredeep of the southern Pyrenees of Spain, originally located at the foreland and incorporated to the orogen between the Upper Lutetian (Eocene) and Upper Oligocene to Lower Miocene. Regional and local controls on sedimentation are known to act at different scales in foreland basins. Magnetostratigraphy constitutes one of the most reliable tools for dating sediments and tectonic events in this type of setting. New magnetostratigraphic data together with a detailed mapping and stratigraphic study of the southern central region of Jaca basin is presented. New age and sedimentation rates are proposed for the units outcropping in Santa Orosia region, Huesca province. The general regressive tendency of the sedimentary sequence is clearly controlled by the uplift and emergence of the Pyrenees. However, other factors might interfere on higher frequency cycles. Lateral facies changes and variable sedimentation rates across the basin are an indication of distinct causes affecting depocenter geometries and accommodation available at different times during basin evolution.



**Figure 1.** Stratigraphic correlation amongst the four described profiles. 1: San Román profile; 2: Santa Orosia profile; 3: Sobás profile; 4: Fanillo profile.